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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-24695; Directorate Identifier 2006-NM-035-AD; Amendment 39-14710; AD 2006-16-10]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747-200B, 747-200C, 747-200F, 747-300, and 747SR Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Boeing Model 747-200B, 747-200C, 747-200F, 747-300, and 747SR series airplanes. This AD requires doing repetitive inspections of engine struts 1 through 4, as applicable, for heat discoloration, cracking, buckling, or wrinkling. This AD also requires doing a conductivity test to detect the extent of the heat damage and an inspection to detect cracking of the heat-discolored, buckled, or wrinkled area; and repair, if necessary. This AD results from reports of heat damage and cracking of the skin and internal structure adjacent to and aft of the precooler exhaust vent on several engine struts. We are issuing this AD to detect and correct cracking, buckling, wrinkling, or heat damage of the skin and internal structure of the engine struts, which could result in extensive damage to the engine struts and consequent possible separation of an engine from the airplane during flight.

DATES: This AD becomes effective September 13, 2006.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of September 13, 2006.

ADDRESSES: You may examine the AD docket on the Internet at <http://dms.dot.gov> or in person at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC.

Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: Ivan Li, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6437; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Examining the Docket

You may examine the airworthiness directive (AD) docket on the Internet at <http://dms.dot.gov> or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the street address stated in the ADDRESSES section.

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to certain Boeing Model 747-200B, 747-200C, 747-200F, 747-300, and 747SR series airplanes. That NPRM was published in the Federal Register on May 9, 2006 (71 FR 26888). That NPRM proposed to require doing repetitive inspections of engine struts 1 through 4, as applicable, for heat discoloration, cracking, buckling, or wrinkling. That NPRM also proposed to require a conductivity test to detect the extent of the heat damage and an inspection to detect cracking of the heat-discolored, buckled, or wrinkled area; and repair, if necessary.

Comment

We provided the public the opportunity to participate in the development of this AD. We have considered the single comment received. The commenter, Boeing, supports the NPRM.

Conclusion

We have carefully reviewed the available data, including the comment received, and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

There are about 112 airplanes of the affected design in the worldwide fleet. This AD will affect about 33 airplanes of U.S. registry. The required detailed inspections will take about 4 or 8 work hours per airplane (depending on the airplane configuration), at an average labor rate of \$80 per work hour. Based on these figures, the estimated cost of this AD for U.S. operators is \$10,560 or \$21,120, or \$320 or \$640 per airplane, per inspection cycle (depending on the airplane configuration).

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket. See the ADDRESSES section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):

AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/
www.gpoaccess.gov/fr/advanced.html

U.S. Department
of Transportation
**Federal Aviation
Administration**



2006-16-10 Boeing: Amendment 39-14710. Docket No. FAA-2006-24695; Directorate Identifier 2006-NM-035-AD.

Effective Date

- (a) This AD becomes effective September 13, 2006.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Boeing Model 747-200B, 747-200C, 747-200F, 747-300, and 747SR series airplanes, certificated in any category; as identified in Boeing Special Attention Service Bulletin 747-54-2223, dated January 26, 2006.

Unsafe Condition

(d) This AD results from reports of heat damage and cracking of the skin and internal structure adjacent to and aft of the precooler exhaust vent on several engine struts on in-service airplanes. We are issuing this AD to detect and correct cracking, buckling, wrinkling, or heat damage of the skin and internal structure of the engine struts, which could result in extensive damage to the engine struts and consequent possible separation of an engine from the airplane during flight.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Service Bulletin

(f) The term "service bulletin," as used in this AD, means the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-54-2223, dated January 26, 2006.

Repetitive Detailed Inspections

(g) Within 18 months after the effective date of this AD, do a detailed inspection of engine struts 1 through 4, as applicable, for heat discoloration, cracking, buckling, or wrinkling, in accordance with the service bulletin. Repeat the detailed inspection thereafter at intervals not to exceed 18 months.

Corrective Actions

(h) If any heat discoloration, buckling, or wrinkling is found during any detailed inspection required by paragraph (g) of this AD, before further flight, do a conductivity test to detect the extent of the heat damage and a penetrant inspection or high frequency eddy current inspection to detect cracking of the heat-discolored, buckled, or wrinkled area, in accordance with the service bulletin.

(1) If the conductivity test results are within the limits specified in the service bulletin and no cracking is detected, before further flight, repair any buckled or wrinkled area using a method approved in accordance with the procedures specified in paragraph (j) of this AD. Heat discoloration does not need to be repaired if the conductivity test results of the heat-discolored area are within the specified limits in the service bulletin.

(2) If the conductivity test results are outside the limits specified in the service bulletin or if any cracking is detected, before further flight, repair any cracking, heat discoloration, or buckled or wrinkled area using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(i) If any cracking is found during any detailed inspection required by paragraph (g) of this AD, before further flight, repair the cracking using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

Alternative Methods of Compliance (AMOCs)

(j)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD, if it is approved by an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization who has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

Material Incorporated by Reference

(k) You must use Boeing Special Attention Service Bulletin 747-54-2223, dated January 26, 2006, to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference of this document in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for a copy of this service information. You may review copies at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Room PL-401, Nassif Building, Washington, DC; on the Internet at <http://dms.dot.gov>; or at the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on July 27, 2006.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E6-12826 Filed 8-8-06; 8:45 am]